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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/753,483 | 01/09/2004 | Sumio Okuno | 648.41258CX1 | 6885 |

20457 7590 09/07/2005

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| EXAMINER |
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JULES, FRANTZ F

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| ART UNIT | PAPER NUMBER |
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3617

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,483

Applicant(s)

OKUNO ET AL.

Examiner

Frantz F. Jules

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashima et al (US 6,196,135) in view of Pavlick et al (US 4,715,292) and Torke (US 3,983,962).

Kashima et al disclose a railway car comprising an underframe, side structures, and a roof structure, characterized in that in the underframe, material used to form the longitudinal end of the railway car is softer than material used to form a longitudinal center portion thereof, the material of said longitudinal end being formed by a softening process, wherein one or more center sills (61) are disposed on a lower side of said underframe along a longitudinal direction of the railway car for joining a coupler thereto and are selected such that the material used to form the longitudinal end of the center sills is softer than the material used to form the longitudinal center portion of the center sills.

Kashima et al teach all the limitations of claims 1-3 and 7-9 except for a railway car in which the underframe of both end of the car constituting a portion of a passenger room are made of softer material formed by annealing. The general concept of providing shock absorbing material to both end of a railcar constitutes an obvious duplication of

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parts and is well known in the art as illustrated by Pavlick et al which disclose the teaching of providing shock absorbing material to both end of a passenger rail car. Also, the general concept of using the process of annealing a material used in a vehicle for the purpose of absorbing energy is well known in the art as illustrated by Torke which discloses the use of annealing process in the softening a frame member used for energy absorbing purpose, see fig. 1, col. 1, lines 5-8, lines 48-51, lines 55-57, lines 64-68. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kashima et al to include the use of providing both end of the car constituting a portion of a passenger room with a material made of softer or impact absorbing material in his advantageous railway car as taught by Pavlick et al in order to provide safety for the passengers in case of an accident. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kashima et al to include the use of material softened by annealing process in both longitudinal ends of the underframe of the railway car as taught by Torke in order to increase the buckling resistance of the frame member, prevent perpendicular extension of corrugation to the bending edge of the frame members thereby increasing safety during a collision.

3. Claims 4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kashima et al (US 6,196,135), Pavlick et al (US 4,715,292) and Torke (US 3,983,962), as applied to claim 1 and in view of Taguchi et al (US 6,263,805 B1).

Claims 4 and 6

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Kashima et al, Pavlick et al, and Torque teach all the limitations of claim s 4, 6-7 except for side sills and center sill provided with elongated holes. The general concept of providing side sills and center sill provided with elongated holes to a railway car is well known in the art as illustrated by Taguchi et al which disclose the teaching of side sills and center sill provided with elongated holes. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kashima et al, Pavlick et al, and Torke to include the use of side sills and center sill provided with elongated holes in his advantageous railway car as taught by Taguchi et al in order to reduce the weight of the car.

Claim 7

Regarding using length of longitudinal ends of 100 to 500 mm as recited in claim 7, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kashima et al, Pavlick et al, and Torque to include the use length of longitudinal ends of 100 to 500 mm in his advantageous system, as vehicle end structure design is a common and everyday occurrence throughout the suspension rail design art and the specific use of length of longitudinal ends of 100 to 500 mm would have been an obvious matter of design preference depending upon such factors as the intensity of the impact loading imposed on the railway car, the yield strength of the end structure materials, the maximum speed of the railway car; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the railway car ends which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

Response to Arguments

4. Applicant's arguments filed 02/28/2005 have been fully considered but they are moot in view of the new ground of rejection.

The disclosure of softening of an elongated frame member to be used in a vehicle by annealing process renders obvious the claimed invention and give rise to the new ground of rejection. Moreover, it is well known to have center sill in the underframe of a railway car that is used in shock absorbing application.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 308-8780. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules
Primary Examiner
Art Unit 3617

FFJ

September 1, 2005

FRANTZ F. JULES
PRIMARY EXAMINER

